IN THE UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

HAMPTON HARRIS, Individually, and as	§	
Independent Administrator of the Estate of	§	
MICHAEL HARRIS, Deceased; and ANDREW	§	Civil Action No. 4:00 ov 02155
MUSGROVE, Individually and as Independent	§	Civil Action No. 4:09-cv-03155
Administrator of the Estate of ANNE HARRIS,	§	Hon. Lynn Hughes
	§	Hon. Lynn Hughes
Plaintiffs,	§	
	§	
VS.	§	
	§	
SOCIÉTÉ AIR FRANCE; AIRBUS S.A.S.;	§	
HONEYWELL INTERNATIONAL, INC.;	§	
ROCKWELL COLLINS, INC.; and	§	
THALES AVIONICS, S.A.,	§	
	§	
Defendants.	§	

DEFENDANT SOCIÉTÉ AIR FRANCE'S CROSS-CLAIMS

Defendant Société Air France ("Air France"), by and through its attorneys, Holland & Knight LLP and Stepp & Sullivan, P.C., while denying that it is obligated or liable for claims asserted by Plaintiffs, and without waiver of any rights, privileges, and defenses, alleges by way of Cross-Claims against Defendants Airbus, S.A.S. ("Airbus") and Thales Avionics, S.A. ("Thales"), as follows:

The Parties

1. These cross-claims arise from the accident involving an Airbus A330-203 aircraft, Registration No. F-GZCP (the "Airbus Aircraft"), operated as Air France Flight 447 (the "Flight"), which occurred on June 1, 2009 over the Atlantic Ocean during a flight from Rio de Janeiro, Brazil to Paris, France (the "Accident").

- 2. Air France is a foreign corporation organized and existing under the laws of France with its principal place of business in France. Air France owned the Airbus Aircraft and operated Air France Flight 447 on June 1, 2009.
- 3. Upon information and belief, Airbus is a French corporation, with its principal place of business in Toulouse, France, and is engaged in and responsible for, *inter alia*, the design, manufacture, modification, marketing, system integration, testing, inspection, sales, repair, servicing, and continued airworthiness, as type certificate holder, of Airbus aircraft and related parts and components, including the Airbus Aircraft.
- 4. Upon information and belief, Thales is a French corporation, with its principal place of business in France, and is engaged in and responsible for, *inter alia*, the design, manufacture, modification, marketing, system integration, testing, inspection, sales, repair and servicing of Pitot probes and other related parts and components, including the Pitot probes that were installed on the Airbus Aircraft.

Jurisdiction and Venue

- 5. This Court has supplemental jurisdiction over these cross-claims under 28 U.S.C. §1367(a) because they arise out of the same occurrence alleged in Plaintiffs' Amended Complaint so as to form part of the same case or controversy within the meaning of Article III of the U.S. Constitution.
- 6. Venue is proper under 28 U.S.C. § 1391(b) as Airbus and Thales are found in or are subject to personal jurisdiction in this district.

Factual Allegations

7. Plaintiffs seek to recover damages arising from the injury and death of decedents Michael Harris and Anne Harris, who were ticketed passengers on the Flight. While no survivors of Air France Flight 447 have been found, approximately 50 bodies of passenger and

crew members have been recovered and, therefore, Michael Harris and Anne Harris are presumed to have died.

- 8. Plaintiffs have named Air France as a defendant. Plaintiffs also have sued, *inter alia*, Airbus and Thales (collectively the "Products Defendants") for alleged negligence and strict products liability arising out of, *inter alia*, the design, manufacture, modification, testing, packaging, marketing, selling, installation, support, servicing, repairing, and/or maintenance of the Airbus Aircraft and/or its component parts, including but not limited to the Pitot probes installed thereupon (collectively, the "Products"), and the preparation, revision, and/or updates of notices, information, manuals, instructions, warnings and/or procedures regarding the operation, maintenance, and limitations of the Products.
- 9. For the following reasons, Air France is entitled to contribution and/or indemnity from, and/or to enforce rights of subrogation or equitable subrogation against, the Products Defendants in the event that Air France is found to be liable for losses, injuries, or damages suffered by Plaintiffs as a result of the Accident.

A. <u>Pitot Probes On Air France Airbus Aircraft</u>

10. "Pitot probes" are tubes located on the exterior of aircraft, meant to contribute to measurement of aircraft speed via measurements of external dynamic pressure. On Airbus aircraft, the Air Data Reference ("ADR") modules of the aircraft's main computers, the three ADIRUs, receive measurements from three Pitot probes, and convert those measurements into a measurement of calibrated aircraft speed ("CAS"), true aircraft speed ("TAS"), mach, and altitude, pursuant to various internal calculation rules. That data is then fed to the aircraft's most important systems, including but not limited to the fly-by-wire control system, the engine

management system, the flight management, guidance, and envelope computers, and the flight control primary computers.

- 11. Proper determination and monitoring of airspeed is critical. As a result of variations in air density and temperature, the envelope of safe speed becomes narrower at higher altitudes, such as those typically experienced during cruise phases of long-haul flights, making accurate calculation and display of airspeed especially critical during this portion of a flight.
- 12. Normal operation of an Airbus aircraft is, in normal conditions during a flight's cruise phase, a relatively automated process. However, under certain systems failures, fly-by-wire "normal" law may switch to "alternate 1" or "alternate 2" laws. This switch to either alternate law decreases, proportionately and respectively, protections in the flight envelope, while simultaneously increasing the flight crew's workload.
- 13. Where the speed measurements from the three Pitot probes do not agree, and where this disagreement is significant and persistent, the aircraft will be shifted to "alternate 2" law. Autopilot and autothrust functions are automatically disengaged. Also, in "alternate 2" law, the following protections are disengaged: pitch attitude protection; high angle of attack protection; high speed protection; and bank angle protection.
- 14. Under such circumstances, the flight crew is tasked with maintaining the aircraft within the narrow window of safe flight speed without all of the protections of the flight envelope, and while following unreliable air speed ("UAS") procedures.
- 15. Historically, all Air France short-haul and medium-haul A320 aircraft were equipped with Pitot probes manufactured by Badin Crouzet, subsequently known as Sextant Avionics and then Thales Avionics.

- 16. In 1999, due to the risk of water ingress and inconsistent speed data during heavy rain conditions at low altitudes, Airbus recommended that these Badin Crouzet Pitot probes be replaced by Sextant (Thales) P/N C16195-AA Pitot probes ("Thales AA Probes"). Air France complied with the recommendation of Airbus.
- 17. Historically, all Air France long-haul A340 aircraft were outfitted with Rosemount P/N 0851GR Pitot Probes.
- 18. Following fluctuations and/or inconsistency in aerodynamic speed indications on the long-haul A330 and A340 reported by some airlines, the French Civil Aviation Authorities in August 2001 published an Airworthiness Directive requiring the replacement of these Rosemount probes. Those authorities attributed these incidents to the presence of ice crystals and/or quantities of water which exceeded the specifications of the Rosemount probes.
- 19. Per this Airworthiness Directive, the Rosemount probes were to be replaced with either the Goodrich P/N 0851HL Pitot probe ("Goodrich Probe") or the Thales AA Probes, which were newly certified for A330 and A340 aircraft by this Airworthiness Directive.
- 20. On information and belief, the Goodrich Probes were designed by Goodrich, in consultation with Airbus, to provide enhanced reliability during icing conditions. On information and belief, the Goodrich Probes have been available for use on certain Airbus aircraft including the A330 and A340 since their type certification.
- 21. Air France took its first deliveries of long-haul A330 aircraft beginning in December 2001. These A330 aircraft were equipped at time of delivery from Airbus with Thales AA Probes. Prior to the Accident, Air France had received no information from Airbus or Thales indicating that Thales AA Probes were unsuitable for the long-haul A330 or A340

aircraft, or that the Goodrich Probes would be better suited for that aircraft's expected operating environment.

- 22. In September 2007, Airbus issued a service bulletin (34-3206), on an optional basis and devoid of any context affecting aircraft airworthiness, that the Thales AA Probes fitted onto all A340 and A330 aircraft be replaced with a new Thales P/N C16195-BA model Pitot probe ("Thales BA Probe"). This model was said by Airbus at the time to improve the performance of the probe by limiting water ingress and icing under severe conditions.
- 23. A recommendation from the manufacturer gives the operator total freedom to apply the corresponding recommendation fully, partially, or not at all. Should flight safety be concerned, the manufacturer, together with the authorities, issues a mandatory service bulletin followed by an airworthiness directive. No such action was taken by Airbus with respect to the Thales AA Probes before the Accident.
- 24. Prior to September 2007, Air France's A320 fleet had experienced incidents involving inconsistency in speed indications at low altitude during heavy rain. Accordingly, after examination of Airbus' September 2007 service bulletin, Air France decided to modify its A320 fleet by replacing all Thales AA Probes with Thales BA Probes. Air France decided to replace the Thales AA Probes on its A330 and A340 fleets with Thales BA Probes only when a failure occurred, as Air France had at the time experienced no incidents involving inconsistencies in speed data on these long-haul aircraft.

B. <u>Incidents of Unreliable Speed Indications Experienced By Other Airlines</u>

25. Both the A330 and A340 models are long-haul aircraft, and both models are designed to fly at similar cruising altitudes and within roughly the same speed envelopes. The

A330 and A340 are designed to fly for longer ranges, and at higher cruising altitudes, than the shorter-haul A320.

- 26. On information and belief, the anemometer systems on A330 and A340 aircraft are identical. Accordingly, incidents relating to the speed-measuring systems on A340 aircraft are highly relevant to risks present in the A330 fleet, and vice versa.
- 27. On information and belief, there were at least 25 instances prior to June 1, 2009 in which at least two of the three Pitot probes on A330 or A340 aircraft were disabled by ice blockages, causing at least a temporary loss of reliable indications of air speed during cruise phases of flight.
- 28. A significant number of these events were accompanied by the following conditions often present during the cruise phases of A330 and A340 long-haul aircraft: high-altitude, low temperature, and unstable air. The vast majority of these incidents occurred on aircraft equipped with Thales AA Probes.
- 29. Such incidents of loss of speed indication at high altitude caused by Pitot icing were known to Airbus prior to the Accident. Indeed, on information and belief, incidents of this nature began to be reported to Airbus as early as 1994, and no later than 1996, and such incidents were reported to Airbus thereafter.
- 30. For example, and on information and belief, in 1995, a Cathay Pacific A330 aircraft was flying through difficult weather in an "inter-tropical convergence zone" when it encountered a loss of speed indication from the Pitot probes, automatic disconnection of most aircraft automated systems, and a barrage of confusing and contradictory readings from the aircraft's systems and instruments. The cause of the incident was suspected to be a blockage of the aircraft's Pitot probes by small ice crystals, causing a failure of the aircraft's automated speed

sensing functionality and a cascade of follow-on consequences in the aircraft's other automated systems and instruments. On information and belief, Airbus was aware of this incident soon after its occurrence and no later than 1996, and had stated to the airline that it would engage in further research into Pitot probe design in an effort to make them more resilient to icing conditions.

- 31. On information and belief, the increasing number of incidents attributable to blocking of at least two Pitot probes with ice, involving A340 aircraft equipped with Thales AA Probes, was known to Airbus well prior to the Accident.
- 32. Such incidents were also known to Thales. In 2005, Thales launched its "Project Adeline," a research project aimed at finding alternative technologies to replace pitot probes, given (*inter alia*) their susceptibility to icing. At the time, Thales warned that losing airspeed data could "cause aircraft crashes especially in case of probe icing." However, on information and belief, Thales shelved this project in 2008. No design changes or modifications to the Thales AA Probe were adopted.
- 33. In summary, it was well-known to Airbus and Thales, well before the Accident, that in temperature and weather conditions that the A330 aircraft would be likely to encounter in its normal operations, the installed speed sensing equipment, including the Thales AA Probes, was prone to defective performance.
- 34. However, despite the steady stream of incidents of loss of speed indication at high altitude on aircraft equipped with Thales AA Probes, neither Airbus nor Thales took any meaningful action before the Accident to reduce the incidence of these incidents, or to eliminate one of their most significant root causes known to Airbus and Thales: ice blockages at high altitude.

C. <u>Incidents of Unreliable Speed Indications Experienced By Air France</u>

- 35. Despite the significant number of A330 and A340 aircraft within Air France's fleet, neither Airbus nor Thales notified Air France prior to November 2008 of these incidents reported by other airlines involving loss of air speed indication during the cruise phase of long-haul flights.
- 36. In May 2008, the first incident involving loss of airspeed data during the cruise phase of flight of an Air France A340 occurred. Several additional incidents of this nature occurred on Air France A340 aircraft between May and August 2008.
- 37. Air France immediately reported these A340 incidents to Airbus, requested that Airbus advise Air France of the root cause of these incidents, and requested of Airbus a corrective solution for these incidents.
- 38. In September and October 2008, extensive technical discussion and correspondence occurred between Air France and Airbus regarding the incidents of inconsistent speed data on Air France A340 aircraft. Two additional incidents of this nature occurred and were reported by Air France during this period.
- 39. The loss of speed indication at high altitude resulting from Pitot probe icing was reported to Airbus as a major event. Air France raised questions with respect to follow-on negative impacts on safe management of the affected flights. These impacts included loss of autopilot, auto-thrust, and flight director functions; issuance of numerous cascading automated warnings of suspect reliability at best, and of an inherently contradictory nature at worst; altitude loss; and inability of flight crews to determine quickly and accurately the aircraft's speed. Despite Air France's multiple notices to Airbus of major problems and repeated requests for a solution, Airbus responded in September 2008 merely that "in cruise at high altitude, even in

case of unreliable speed situation due to pitot probe icing, we should consider that 'the safe conduct of the flight is not impacted.'"

- 40. Also, in October 2008, Air France directly alerted Thales to the worsening problem of Pitot icing at high altitude on its aircraft equipped with Thales AA Probes.
- 41. Throughout these 2008 discussions, Airbus informed Air France: (a) that the presumed cause of these incidents on Air France's long-haul Airbus aircraft was the formation of ice crystals on or in the Pitot probes during the high-altitude cruise phase of flight, which blocked them and rendered them inoperable; (b) that the Thales BA Probe had been designed to improve drainage of liquid water ingested into the probe at low altitude, not to address the problem of probe icing, and that the Thales BA Probe would not provide a significant improvement with respect to these A330 and A340 incidents caused by Pitot icing; (c) that the Thales AA Probes in place on Air France's A330 and A340 aircraft met or exceeded applicable certification requirements; and (d) that Airbus did not plan to introduce a new Pitot probe design with improved performance in icing conditions.
- 42. At the time of these Autumn 2008 discussions between Air France and Airbus, Airbus was aware of at least 25 incidents between 2003 and September 2008 involving Pitot obstruction by ice on A330 and A340 aircraft. 23 of these incidents involved aircraft with Thales AA probes installed. Goodrich Probes, although installed on nearly 70% of the worldwide fleet of A330 and A340 aircraft at the time, accounted for only 2 of these 25 incidents.
- 43. Nor, during discussions between Air France and Airbus, did Airbus ever propose to Air France other system modifications known to Airbus at the time that might have

allowed more efficient identification and resolution of inconsistencies in speed indications, and that might have simplified control over the aircraft in such situations.

- 44. At the time when Air France first began to experience Pitot probe anomalies on its long-haul Airbus fleet, the applicable Pitot probe certification standards had been in effect since 1947 a time when aircraft flew at much lower altitudes and therefore were not faced with the foreseeable conditions present at the flight levels at which modern long-haul aircraft such as the A330 are intended to fly.
- 45. Although Air France's long-haul Boeing fleet is larger than its long-haul Airbus fleet, Air France did not experience any Pitot probe anomalies on its long-haul Boeing fleet over this period, or in preceding years. Between 2008 and 2009, Air France's A330/A340 fleet experienced 9 such events over 312,386 total flight hours, while Air France's Boeing 747/777 fleet experienced no such events over 694,833 flight hours.
- 46. Prior to the Accident, Airbus offered no solution to the problem of Pitot icing causing loss of flight speed indication. Instead, it merely referred Air France to the Airbus-recommended procedures for "unreliable speed indication," in effect attempting to shift the burdens attendant to Airbus' and Thales' defective products to Air France and its flight crews. Airbus, in contradictory fashion, advised Air France that the "memory items" within these procedures should not be applied during cruise at high altitudes, even in cases of unreliable speed indication caused by Pitot probe icing. Airbus further advised Air France that it was engaged in an on-going "operational procedures review" regarding possible "enhancements" to its recommended UAS procedures. On several occasions, Air France requested that Airbus improve the UAS procedures. No such enhancements or improvements were provided by Airbus prior to the Accident.

- 47. Thus, Airbus, despite full knowledge of Air France's parameters of cruising at high altitudes, failed to resolve the problems of Pitot probe icing prior to the Accident.
- 48. Airbus revised its service bulletins of September 2007 via a revision thereto dated November 12, 2008. Notably, this November 12, 2008, revised service bulletin indicated that Airbus no longer recommended the installation of Thales BA Probes on A330 and A340 aircraft to reduce the risk of icing.
- 49. In November 2008, a meeting took place between the technical managements of Air France and Airbus, where the incidents involving inconsistent speed data in A330 and A340 aircraft were discussed at length. Airbus once again confirmed that these incidents were caused by the icing-over of the Pitot probes, that the Thales BA Probes would not address the problem, and that the Pitot probes in place on the Air France A330 and A340 aircraft were compliant with regulatory requirements. Air France again asked Airbus for a rapid solution to the incidents of inconsistent speed data it was experiencing.
- 50. At this November 2008 meeting, Air France specifically asked Airbus if it would be possible to replace the Thales AA Probes on A330 and A340 aircraft with Goodrich Probes. Airbus noted Air France's inquiry, indicated that it would verify the compatibility and technical feasibility of a replacement of Thales AA Probes with Goodrich Probes, and that, if feasible, it would issue the specific technical instructions that would be required for the replacement.
- 51. Airbus failed to issue technical instructions allowing the replacement of Thales Probes with Goodrich Probes until August 2009, several months after the Accident.
- 52. In February 2009, wind tunnel tests were conducted by Thales and Airbus on the behavior of Thales BA Probes.

- 53. In March 2009, three additional Air France operating incidents involving inconsistent speed data occurred and were reported, including the first on an A330 aircraft. On several occasions at or around this time, Air France again appealed to Airbus for a rapid technical solution. Again, Airbus responded merely by confirming the presumption of Pitot probe icing as a cause for these incidents, and referring Air France to a maintenance procedure for routine checks on the probes.
- 54. In a letter dated April 15, 2009, Airbus changed its position. According to Airbus's April 2009 communication to Air France, while the Thales BA Probe had not been designed to solve the problem of probe icing, wind tunnel tests conducted by Thales in February 2009 had revealed a significant improvement in performance of the Thales BA Probe against that of the Thales AA Probe in icing environments. Given the limitations of the wind tunnel tests, Airbus suggested a trial on Air France aircraft to check whether this improvement would be confirmed in a real-life situation.
- 55. Notably, this April 15, 2009, letter marked the <u>first</u> time, during these months of discussions between Air France and Airbus, that Air France had been advised by Airbus or Thales that, when compared to the Thales AA Probes, the Thales BA Probes might reduce the incidence of high-altitude airspeed discrepancy resulting from pitot probe icing.
- 56. As soon as Air France was advised of the results of the wind tunnel test, and without waiting for the trial testing suggested by Airbus, Air France decided immediately to replace the Thales AA Probes with Thales BA Probes on all of its A330 and A340 aircraft. Launch instructions for the replacement procedure were issued by Air France on April 27, 2009 less than two weeks after Airbus' letter of April 15, 2009.

- 57. Air France immediately ordered Thales BA Probes for its A330 and A340 fleet. The modification process was scheduled to commence immediately upon delivery of the parts by Thales, originally expected on or about June 1, 2009.
- 58. In May 2009, Air France asked Thales to speed up the delivery schedule for its Thales BA Probes. The first shipment was received by Air France on May 26, 2009. By June 12, 2009, all the Airbus A320, A330, and A340 aircraft operated by Air France were equipped with Thales BA Probes.

D. June 1, 2009 – Air France Flight 447:

- 59. On the night of May 31, 2009, the Flight departed Rio de Janeiro Galeao International Airport, en route to Paris Charles De Gaulle International Airport. Approximately 3 hours and 45 minutes into the Flight, in the early-morning hours of June 1, the Airbus Aircraft crashed into the Atlantic Ocean in international waters.
- 60. The flight crew for the Flight was made up of a Captain and two co-pilots, all with the appropriate qualifications, training, and experience necessary to safely operate the Airbus Aircraft in the area along the course of the planned flight.
- 61. The Airbus Aircraft was, at the time of the Flight, equipped with Thales AA Probes.
- 62. At the time of the Flight, the Airbus Aircraft and its systems and components, including the Thales AA Probes, were being operated and used by Air France for the purpose and in the manner for which they were designed, manufactured, assembled, distributed, sold, supplied, marketed and intended by Airbus and Thales to be used, in a manner reasonably foreseeable to Airbus and Thales, and in a condition without substantial change from their original condition when sold or supplied by Airbus and Thales.

- 63. The Airbus Aircraft sent at least 24 automated messages via its Aircraft Communications Addressing and Reporting System ("ACARS"), between 2:10 A.M. and 2:15 A.M. on June 1, 2009. Before 2:10 A.M., no ACARS maintenance messages had been received from the Flight, with the exception of two messages relating to the configuration of the Airbus Aircraft's toilets.
- 64. Of the 24 ACARS messages received between 2:10 A.M. and 2:15 A.M. on June 1, 2009, 21 were caused (or are causable) by speed-sensing problems and their consequences. Ten messages specifically indicated inconsistencies and/or failures in the speeds measured by the Thales AA Probes installed on the Airbus Aircraft. An additional eleven messages can be linked to anemometric problems (inconsistent speeds, low speeds, or erratic speeds), and to the cascading consequences and failures that such problems can cause under the architecture of the Airbus Aircraft's automated systems.

E. <u>After Air France Flight 447:</u>

- 65. The European Aviation Safety Agency ("EASA"), on August 31, 2009, issued an Airworthiness Directive (AD No. 2009-0195) making it mandatory to equip all A330 and A340 aircraft with at least two Goodrich Probes, described by the EASA as having a demonstrated level of robustness to withstand high-altitude ice crystals superior to Thales Probes. Under the Airworthiness Directive, no more than one Thales BA Probe (of three total) may be used on these aircraft, and Thales AA Probes are not approved for installation on these aircraft.
- 66. The EASA's August 2009 Airworthiness Directive is substantively consistent with a similar Directive issued by the United States Federal Aviation Administration in August 2009, which likewise requires Goodrich Probes for at least two of the three Pitot probe positions on A330 aircraft.

- 67. On August 3, 2009, Airbus issued a temporary technical instruction to allow replacement of Goodrich Probes on Airbus aircraft previously equipped with Thales Probes, and on August 12, 2009, Airbus issued a final modification Service Bulletin in accord.
- 68. In compliance with these directives, the entire fleet of Air France A330 and A340 aircraft has been equipped with Goodrich Probes since August 2009.

General Allegations

- 69. Airbus owed a duty to Air France and the passengers and crew on the Flight to exercise reasonable care in, *inter alia*, the design, manufacture, modification, testing, packaging, marketing, selling, installation, support, servicing, repairing, and/or maintenance of the Airbus Aircraft and all components and systems installed thereupon, and in the preparation, revision, and/or updates of notices, information, manuals, instructions, warnings and/or procedures regarding the operation, maintenance, and limitations of the Airbus Aircraft and all components and systems installed thereupon.
- 70. Thales owed a duty to Air France and the passengers and crew on the Flight to exercise reasonable care in, *inter alia*, the design, manufacture, modification, testing, packaging, marketing, selling, installation, support, servicing, repairing, and/or maintenance of the Thales AA Probes installed on the Airbus Aircraft, and in the preparation, revision, and/or updates of notices, information, manuals, instructions, warnings and/or procedures regarding the operation, maintenance, and limitations of the Thales AA Probes installed on the Airbus Aircraft.
- 71. Prior to the Accident, Airbus and Thales had specific and detailed knowledge that the Airbus Aircraft, and systems installed thereupon including the Thales AA Probes, would present a risk of harm to Air France and the passengers and crew of the Flight, and members of

the general public, and that this risk of harm was reasonably foreseeable in light of the reasonably expected flying conditions encountered by an A330 aircraft.

- 72. Airbus designed the Airbus Aircraft, and all components and systems installed thereupon, in such manner as to present a known and foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public. Further, despite due notice thereof, Airbus failed to adequately and timely remedy these design defects prior to the Accident.
- 73. Thales designed the Thales AA Probes installed on the Airbus Aircraft in such manner as to present a known and foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public. Further, despite due notice thereof, Thales failed to adequately and timely remedy these design defects prior to the Accident.
- 74. Airbus failed to adequately and timely warn Air France prior to the Accident that the Airbus Aircraft, and all components and systems installed thereupon including the Thales AA Probes, presented a foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public.
- 75. Thales failed to adequately and timely warn Air France prior to the Accident that the Thales AA Probes installed on the Airbus Aircraft presented a foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public.
- 76. Prior to the Accident, Airbus failed to provide instruction and training to Air France adequate to eliminate or reasonably reduce the foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public, occasioned by the defects inherent in the Airbus Aircraft and all components and systems installed thereupon, including the Thales AA Probes.

- 77. Indeed, the additional procedures recommended by Airbus in situations of "unreliable speed indication" increased flight crew workloads at critical points in flight, thereby themselves increasing these foreseeable risks of harm to Air France, to the passengers and crew of the Flight, and to members of the general public.
- 78. Prior to the Accident, Thales failed to provide instruction and training to Air France adequate to eliminate or reasonably reduce the foreseeable risk of harm to Air France, to the passengers and crew of the Flight, and to members of the general public, occasioned by the defects inherent in the Thales AA Probes installed on the Airbus Aircraft.
- 79. Accordingly, Airbus and Thales negligently, recklessly, intentionally, and/or willfully designed, manufactured, modified, tested, packaged, marketed, sold, supplied, installed, supported, serviced, repaired, and/or maintained the Products, and negligently, recklessly, intentionally, and/or willfully prepared, revised, and/or updated notices, information, manuals, instructions, warnings and/or procedures regarding the operation, maintenance, and limitations of the Products.
- 80. Further, for the reasons detailed above, the Products were inherently defective and dangerous, unfit for their intended use, and posed an unreasonable risk of harm to others, including Air France, the passengers and crew on the Flight, and to members of the general public, that was foreseeable and known to Airbus and Thales, by reason of: (a) their negligent, willful and/or reckless failure to properly design, manufacture, modify, test, package, market, sell, install, support, service, repair, and/or maintain the Products; (b) their negligent, willful and/or reckless failure to have due regard for the intended and foreseeable use of the Products; (c) their actual or constructive knowledge of feasible alternatives to a defective design of the Products while knowingly marketing the Products, and negligently, willfully or recklessly

refusing to implement the feasible alternatives to the aforesaid defective design of the Products; (d) their negligent, willful and/or reckless failure to provide adequate warnings or warning devices, backup systems or emergency or fail-safe mechanisms for the Products; and (e) their negligent, willful and/or reckless failure to recall, remedy, re-design, advise or warn Air France of defects or hazards of the Products.

- 81. The Accident, and Plaintiffs' losses, injuries, and damages, were proximately caused by the aforementioned negligent, willful and/or reckless acts and omissions of Airbus and Thales, and by defects inherent in the Airbus Aircraft and its component parts, systems, and manuals, including the Thales AA Probes.
- 82. Air France did not cause or contribute to the Accident, or any losses, injuries, or damages suffered by the Plaintiffs.

COUNT I

Claim Against Airbus For Indemnity and to Enforce Rights of Subrogation or Equitable Subrogation

- 83. Air France repeats and realleges each and every allegation contained in paragraphs 1 through 82 with the same force and effect as if fully set forth at length herein.
- 84. Any losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint were brought about and caused by the negligence, lack of due care, culpable conduct, reckless, wanton, or willful misconduct, and reckless disregard for the safety of others, by Airbus, its agents, servants, or employees, without any negligence or culpable conduct on the part of Air France contributing thereto.
- 85. Accordingly, in the event that the Plaintiffs recover judgments against Air France for the losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint (which liability is expressly denied), Air France is entitled to full indemnity from,

and/or to enforce rights of subrogation or equitable subrogation against, Airbus in an amount equal to the sum of any such judgments, and/or for any amounts paid by or on behalf of Air France in settlement, judgment, or compromise of Plaintiffs' claims, together with reasonable attorneys' fees, costs, expenses, and disbursements of this action.

COUNT II

Claim Against Airbus For Contribution

- 86. Air France repeats and realleges each and every allegation contained in paragraphs 1 through 82 with the same force and effect as if fully set forth at length herein.
- 87. Any losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint were brought about and caused, in part, by the negligence, lack of due care, culpable conduct, reckless, wanton, or willful misconduct, and reckless disregard for the safety of others, by Airbus, its agents, servants, or employees.
- 88. Accordingly, in the event that the Plaintiffs recover judgments against Air France for the losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint (which liability is expressly denied), Air France is entitled to contribution from Airbus in an amount equal to Airbus' share of relative culpability for the Accident, and/or for any amounts paid by or on behalf of Air France in settlement, judgment, or compromise of Plaintiffs' claims, together with reasonable attorneys' fees, costs, expenses, and disbursements of this action.

COUNT III

Claim Against Thales For Indemnity and to Enforce Rights of Subrogation or Equitable Subrogation

- 89. Air France repeats and realleges each and every allegation contained in paragraphs 1 through 82 with the same force and effect as if fully set forth at length herein.
- 90. Any losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint were brought about and caused by the negligence, lack of due care, culpable conduct, reckless, wanton, or willful misconduct, and reckless disregard for the safety of others, by Thales, its agents, servants, or employees, without any negligence or culpable conduct on the part of Air France contributing thereto.
- 91. Accordingly, in the event that the Plaintiffs recover judgments against Air France for the losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint (which liability is expressly denied), Air France is entitled to full indemnity from, and/or to enforce rights of subrogation or equitable subrogation against, Thales in an amount equal to the sum of any such judgments, and/or for any amounts paid by or on behalf of Air France in settlement, judgment, or compromise of Plaintiffs' claims, together with reasonable attorneys' fees, costs, expenses, and disbursements of this action.

COUNT IV

Claim Against Thales For Contribution

- 92. Air France repeats and realleges each and every allegation contained in paragraph 1 through 82 with the same force and effect as if fully set forth at length herein.
- 93. Any losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint were brought about and caused, in part, by the negligence, lack of due care,

culpable conduct, reckless, wanton, or willful misconduct, and reckless disregard for the safety of others, by Thales, its agents, servants, or employees.

94. Accordingly, in the event that the Plaintiffs recover judgments against Air France for the losses, injuries or damages sustained by the Plaintiffs as alleged in the Amended Complaint (which liability is expressly denied), Air France is entitled to contribution from Thales in an amount equal to Thales' share of relative culpability for the Accident, and/or for any amounts paid by or on behalf of Air France in settlement, judgment, or compromise of Plaintiff claims, together with reasonable attorneys' fees, costs, expenses, and disbursements of this action.

Notice of Applicability of Foreign Law

Pursuant to Rule 44.1 of the Federal Rules of Civil Procedure, Air France hereby gives notice that it may raise issues concerning the law of a foreign country with respect to its Cross-Claims.

WHEREFORE, Air France prays that judgment be entered in its favor: (1) granting its Cross-Claims; (2) awarding attorneys' fees, costs, expenses and disbursements; and (3) granting such other and further relief as this Court deems just and proper.

Dated: January 19, 2010

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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that I am a member of Holland & Knight, and that a true and correct copy of the foregoing was served on counsel of record as noted below on this, the 19th day of January, 2010.

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